CHARGE NUMBER: 4008

PROGRAM TITLE: Smoker Simulation Studies

DATE OF REPORT: December 10, 1973

PERIOD COVERED: November 1 - November 30, 1974

PROJECT LEADER: George C. Kiritsis

I.   Data Collection

A.   Dictaphone Recorder

Three old recorders were returned to Dictaphone Corporation for head changes. These recorders have been returned and are being evaluated for performance.

B.   Sony Recorder

The Sony recorder, used as a playback unit, has performed well in our laboratory. Two additional units have been received and are being evaluated. One of these units will be placed in the computer room for evaluation as a playback unit into the computer.

C.   Smoker Profile "Recording Units"

The six new units received from the Engineering Group are being evaluated and calibrated prior to placing in the field for use in product testing.

D.   Methods of Filtration Study

Nineteen subjects have completed smoking all four cigarette models and their individual data has been read-out by the computer.

Individual subject data collection for this study has been completed. Puff by puff TPM on each of the four models was obtained using a Command Tape from an individual smoker. In addition, a statistical summary of the various smoking parameters of all nineteen subjects on each of the four models was compiled and analyzed. Preliminary evaluation of the data indicates (1) that the cigarettes were not smoked alike by the panelists; (2) the smoking pattern appeared to be most greatly affected by dilution; (3) TPM (and nicotine) level to the smoker is not directly related to subjective response.

II.   Human Smoking Simulator

       During this reporting period, the variables which could affect
the calibration results on the Simulator were examined; that is,
the length of the vacuum tubing between the various apparatus;
the amount of vacuum; and the RTD of the dummy cigarette and the
test port.

       A standard procedure has been established for calibration
purposes.

III.   Plans

       A.   Continue the monthly calibrations on the smoking profile
recording units, human smoking simulator and Hastings flow meter.

       B.   Complete evaluation of the Sony recorder as a play back
instrument.

       C.   Prepare a command tape to reproduce the average smoking
pattern of the total number of panelists on each model in the
"Methods of Filtration" study.

       D.   Pursue studies to correlate cigarette characteristics with
subjective response and smoking patterns.

IV.   References

       Notebook 6405, pp. 31-36

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